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Examiner Amina S. Khan  
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The Office Action mailed on May 8, 2006 has been reviewed and the Examiner's comments have been carefully considered. Claims 14-21 were previously canceled. New claims 22 and 23 which were submitted in the Office Action dated February 9, 2006 were withdrawn from consideration and are hereby canceled. Claims 1-13 and new claims 24-30 are now pending in this case.

Applicants amend the specification to include information regarding the flash point of the working fluid. The air stream heats the wash liquor composition to a temperature that does not exceed a maximum temperature about 30°F below the flash point of the wash fluid. No new matter is added as was originally claimed in claim 13 of the present application.

Claims 1, 10 and 13 are amended. Claim 1 is amended for clarity to recite the rotation of the wash chamber in terms of oscillation as consistent with that described in paragraph 0154-0156, pages 57, and lines 1-15 of the written description. Claim 10 is amended to depend from claim 7 and ultimately claim 1, because the step of passing the working fluid through a permeate filter occurs after passing the wash liquor through a filter, as recited in claim 7, to produce a permeate of working fluid that can be filtered through the permeate filter. Filtration through the permeate filter is found in paragraphs 0078-0079, on page 26, lines 9-19 of the written description. Claim 13 is amended for clarity to recite that the air stream heats the wash liquor composition to a temperature that does not exceed a maximum temperature about 30°F below the flash point of the working fluid, as was originally claimed in claim 13 of the present application.

New dependent claims 24-28 are added. New claim 24 depends from claim 1 and recites further step of rotating the wash chamber in a manner which changes the surface of the fabric exposed to the air stream. Support for claim recitation is found in paragraph 0064, page 20 of the written description. Claims 25 and 26 and 28 recite the step of cooling the wash liquor to reduce the solubility of water. Support for claim recitation relating to cooling is found in paragraph 0078, page 26, lines 5-12, and paragraphs 0103-0104, page 37 of the written description. New claim 27 depends on claim 13 and recites a wash liquor comprising solvents that have a flash point that range from about 140°F to about 200°F. Support for this claim recitation is found at paragraph 0123, page 42, line 21 of the written description.

New independent claims 29 and 30 have been added and recites many of the features of

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claim 1 and also further recites that the wash drum is rotated in random oscillations. Support for this claim recitation relating to speed and duration of the oscillations can be found in paragraphs 0154-0156, pages 57, and lines 1-15 of the written description.

### Claim Rejections – 35 USC § 112

In the Office Action dated May 8, 2006, claim 13 stands rejected under 35 USC 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The USPTO states, “The components of the working fluid are not clearly defined, therefore the flash point of the working fluid can not be determined.”

Applicants respectfully submit that the working fluid is clearly defined. It is well settled that acceptability of the claim language depends on whether one of ordinary skill in the art would understand what is claimed, and claim language need not be precise. (MPEP 2173.05(b)). Also, in considering the meaning of an invention as claimed, its meaning must be determined based on the context of the prior art.

Claim 13 depends from claim 1 which recites a method of cleaning, which among several elements of the method claims, recite the use of “substantially non-reactive, non-aqueous, non-oleophilic, apolar working fluid.” Applicants submit that these chemical property terms are definite because they are well-known to those of ordinary skill in the dry-cleaning arts. One skilled in the art of dry-cleaning would know, or be able to test decisively, whether a compound has each one of these properties and falls into the metes and bounds of the method as claimed. For example, new fluids can be tested by third parties of the dry cleaning industry, such as the International Fabric Care Institute, which can run tests on alternative working fluids to determine their properties and whether a fluid fits into all of the recited categories.

The term “substantially non-reactive” is described in the written description (paragraph 0004, page 2, lines 1-8) as substantially inert, a non-solvent, non-detergent fluid that under ordinary or normal washing conditions does not appreciably react with the fibers of the fabric load being cleaned, the stains and soils on the fabric load, or the washing adjuvants. The non-reactive working fluid acts as a carrier or vehicle to carry an adjuvant to the clothes so that the adjuvant can work on the clothe. The term “substantially apolar” is a standard chemistry

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definition which means a fluid having a low dielectric constant. A substantially apolar working fluids would exclude water and alcohols and other polar fluids as known by those of ordinary skill in the dry-cleaning arts. Compounds that are "substantially nonoleophilic" are very well known in the dry cleaning industry to mean compounds other than those classified as hydrocarbons. A fluid that is "substantially non-aqueous" is well known to mean a fluid that contains substantially no water.

Claim 13 recites an air stream that heats the wash liquor composition to a temperature that does not exceed a maximum temperature of about 30°F below the flash point of the working fluid. The claim is therefore definite because one could easily determine of whether the temperature of the air stream was about 30°F below the flash point of the working fluid. Accordingly, applicants respectfully request the allowance of claim 13 which is believed to be in condition for allowance.

#### Claim Rejections – 35 USC § 103

##### **I. Claims 1-5 and 13 are not obvious under 35 USC 103(a) over Flynn et al. (US Patent 5,962,390) in view of Dickey (US 3,410,118).**

Claims 1-5 and 13 stand rejected under 35 USC 103(a) as being unpatentable over Flynn et al. (US Patent 5,962,390) in view of Dickey (US 3,410,118). The USPTO states that it would have been obvious for one of ordinary skilled in the art to modify Flynn, et al., which discloses methods of cleaning fabrics, to incorporate the agitation means taught by Dickey for improved mixing of the working fluids and fabrics during dry cleaning.

Applicants' maintain that a *prima facie* case of obviousness under 35 USC 103(a) has not been established by the cited art of record. No *prima facie* case can be established if 1) the prior art reference cannot be properly modified or combined with other references, either for lack of the requisite suggestion or motivation or no reasonable expectation of success, or 2) even if modified or combined as proposed, the resultant modification would still fall short of yielding the claimed invention due to failure to satisfy the elements of the claim.

The combination of references cited by the Examiner do not satisfy all of the claimed features recited in claim 1. Specifically, neither of the references disclose a "providing a stream of air through the wash chamber." The primary reference of Flynn, et al. mentions that a textile

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can be dried, for example, by air-drying with or without added heat" (col. 8, lines 64-64), however, there is no mention the step of providing a stream of air through the wash chamber as recited in Applicants' claim 1. The prior art reference must teach or suggest all the limitations of the claims. See *In re Wilson*, 424 F. 2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970) ("All words in a claim must be considered in judging the patentability of that claim against the prior art.")

Secondly, Applicants maintain that one would not be motivated to combine the references. To establish a prima facie case, the USPTO must satisfy requirements specifically that the prior art relied upon must contain some suggestion or incentive that would have motivated one of ordinary skilled in the art to combine references. See *Karsten Mfg. Corp. v. The Cleveland Golf Co.* 242F.3d1376, 1385,58USPQ2d 1286 1293 (Fed. Cir. 2001).

The Dickey reference describes dry cleaning apparatus and method which are different than conventional dry cleaning apparatus and methods. Dickey states in the background, (see col. 1, lines. 33-48) that in conventional dry-cleaning methods, the materials to be cleaned are tumbled in a bath of solvent and the solvent is subsequently drained from the apparatus. The Dickey apparatus and method utilize a small amount of solvent and the basket of Dickey is rotated in order to circulate the solvent and also to centrifically extract condescended solvent from the materials in the basket. There is no mention or suggestion that the basket is rotated to mechanically clean clothes per the invention of Applicants. Furthermore, there is no indication in the Dickey reference that there is room or space for the materials to move relative to one another, let alone, mention of "mechanical" cleaning due to the movement of the clothes relative to one another.

Applicants' invention is a radical departure in thinking of pre-existing cleaning methods which has led to a counter-intuitive approach to cleaning fabric. Previous to Applicants' invention, bulk carriers or "working fluids" used in the dry-cleaning methods involving a laundering apparatus used chemicals specifically chosen to chemically clean the fabric. In a few cases, these bulk carriers were used in conjunction with a wash adjuvant which were used to further clean the clothes, or were provided to function as surfactants, fabric softeners, perfumes, etc. Applicants were the first to conceive of a method for cleaning a load of fabrics in a washing machine which could be achieved using an substantially inert working fluid (IWF) that is not

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damaging to the fibers. Inert action relies significantly on mechanical cleaning and thermal action and less on chemical cleaning. Applicants have found, surprisingly, that fabrics could be well cleaned by a method in which a working fluid, or the bulk fluid is a substantially inert working fluid provided it is used in conjunction with an adjuvant.

The Dickey reference uses traditional cleaning solvents chosen to chemically clean and does not involve an inert working fluid (IWF) or reliance significantly on mechanical cleaning. Dickey makes no suggestion as to moving the clothing inside the basket and no mention of rotating the basket for purposes of mechanically moving clothes. Therefore it would not be obvious for one of ordinary skilled in the art to look to a reference which a method of cleaning or an apparatus that rotates the basket for circulating condensed solvent through the materials due to the fact that there is substantially less solvent being used, as per the object of the Dickey invention. The teaching of the reference must be taken for what it fairly suggests. Lack of evidence of motivation to combine is a critical defect in establishing a *prima facie* case of obviousness. One must consider the invention as a whole and the references as a whole and be motivated to make substitutions, or otherwise the combination is hindsight reconstruction.

Applicants respectfully request withdrawal of the rejection of claims 1-5 and 13 under 35 USC 103(a) as being obvious over Flynn et al. in view of Dickey.

**II. Claim 6 is not obvious under 35 USC 103(a) over Flynn et al. (US Patent 5,962,390) in view of Dickey (US 3,410,118) and further in view of De Pas et al. (US Patent 3,163,028).**

Claim 6 stands rejected under 35 USC 103(a) as being unpatentable over Flynn et al. (US Patent 5,962,390) in view of Dickey (US 3,410,118) and further in view of De Pas et al. (US Patent 3,163,028). The USPTO states that is would have been ordinary skilled in the art to modify Flynn, et al. by incorporating the vacuum blower top taught by De Pas for efficient and controlled removal of solvent and solvent vapors from clothes during dry cleaning.

The methods taught by Flynn, et al. in view of Dickey and further in view of De Pas do not provide a *prima facie* case of obviousness for the reasons described above with respect to claims 1-5 and 13. Specifically, Flynn et al. does not disclose providing a stream of air through the wash chamber as recited in Applicants' claim 1. The combination of features involved in the

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cleaning method is not suggested by the reference.

Applicants respectfully requests withdrawal of this claim 6 rejection as being unpatentable over Flynn et al. in view of Dickey, and further in view of De Pas et al.

**III. Claims 7 and 10 are not obvious under 35 USC 103(a) over Flynn et al. (US Patent 5,962,390) in view of Dickey (US 3,410,118) and further in view of Tatch et al. (US 5,431,827).**

Claims 7 and 10 are rejected under 35 USC 103(a) as being unpatentable over Flynn et al. (US Patent 5,962,390) in view of Dickey (US 3,410,118) and further in view of Tatch et al. (US 5,431,827).

The USPTO states that it would be obvious to one of ordinary skill in the art to modify Flynn et al. by incorporating the membrane filters taught by Tatch et al.

The methods taught by Flynn, et al. in view of Dickey and further in view of Tatch et al. do not provide a prima facie case of obviousness for the reasons described above with respect to claims 1-5 and 13. Furthermore, Applicants respectfully submit that Tatch et al. merely describes the purification or cleaning of water before flowing down the drain pipe (col. 6 lines 32-35). Fig. 2 is a functional diagram of water purification (col. 6, lines 41-68). Tatch et al. does not mention removing impurities from a working fluid through membrane means to collect and reuse the working fluid in potentially the next wash load.

Applicants respectfully requests withdrawal of the rejection of claims 7 and 10 as being unpatentable over Flynn et al. in view of Dickey, and further in view of Tatch et al.

**IV. Claims 8, 9, 11 and 12 are not obvious under 35 USC 103(a) over Flynn et al. (US Patent 5,962,390) in view of Dickey (US 3,410,118) and Tatch et al. (US 5,431,827) and further in view of Krugmann (US 4,252,546).**

Claims 8, 9, 11 and 12 are rejected under 35 USC 103(a) as being unpatentable over Flynn et al. (US Patent 5,962,390) in view of Dickey (US 3,410,118) and Tatch et al. (US 5,431,827) and further in view of Krugmann (US 4,252,546).

The USPTO states that it would have been obvious to one of ordinary skill in the art to

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modify Flynn et al. by incorporating the water condensation means taught by Krugmann et al. involving solidification of water.

The methods taught by Flynn, et al. in view of Dickey, further in view of Tatch et al., and further in view of Krugmann et al. do not provide a prima facie case of obviousness for the reasons described above with respect to claims 1-5 and 13.

In addition, Applicants note that Krugmann teaches that the water ice crystals float along with excess dry cleaning solvent out into a separating container (col. 3, lines 9-11), and the ice crystals immediately melt to water outside an insulating container (col. 3, lines 11-12). This reference discloses that the basis of separating the dry cleaning solvent from the newly-formed water is due to their differences in specific gravity (col. 3, lines 12-14). Thus, Krugmann does not teach or suggest that the water ice crystals are separated by filtration, per se, as recited in claims 8, 9, 11 and 12 of the present application.

Furthermore, Krugmann et al. discloses recovering exhaust gas and not compositions used for cleaning. Krugmann et al. describes methods where the fluid is condensed and the water is removed from the condensed fluid. The fluid would be relatively free from impurities other than water. In Applicants' invention, the working fluid can include contamination that filtered besides water. For example, impurities such as lint and other large particulates can be removed before the water removal and other contaminants such as dissolved soils can be removed after water removal.

Applicants respectfully request withdrawal of rejection of claims 8, 9, 11 and 12 as being unpatentable over Flynn et al., in view of Dickey, further in view of Tatch et al., and further in view of Krugmann et al.

### Conclusion

In summary, Applicants believes that this Amendment is fully responsive to the Office Action mailed on May 8, 2006, and that Applicants' claims include features that patentably define over the cited references. It is respectfully requested that for the foregoing reasons claims 1-13 and new claims 24-30 of this application be found in condition for allowance.

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If the Examiner believes there are any further matters, which need to be discussed in order to expedite the prosecution of the present application, the Examiner is invited to contact the undersigned.

If there are any fees necessitated by the foregoing communication, please charge such fees to our Deposit Account No. 50-0959, referencing our Docket No. 094342.0031.

Respectfully submitted,  
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